<u>IN THE CLAIMS</u>

Please amend the claims to read as follows:

<u>Listing of Claims</u>

1. (Currently Amended) A system for establishing a remote communications pipe between a PSD and a remote computer system over a network comprising a local client for use as a host to said PSD, wherein said local client comprises means for functionally connecting to a PSD Interface and said network, and means for functionally communicating over said network with said remote computer system; and further comprising:

client communications means for transmitting and receiving message packets over said network using a packet based communications protocol, and for transmitting and receiving APDUs through said PSD Interface;

first client data processing means for receiving incoming message packets from said remote computer system using said client communications means, separating encapsulated APDUs from said incoming message packets thus generating desencapsulated APDUs and routing said desencapsulated APDUs to said PSD through said PSD Interface <u>independently of the origin and integrity of said incoming message packets</u>; and

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second client data processing means for receiving incoming APDUs from said PSD interface, encapsulating said incoming APDUs into outgoing message packets and routing said outgoing message packets to said remote computer system through said client communications means.

2.   (Previously Presented)   The system according to claim 1 further comprising:

at least one PSD comprising means for functionally connecting to said PSD Interface and means for functionally communicating through said Interface; and further comprising;

PSD communications means for transmitting and receiving APDU messages through said PSD Interface; and

PSD processing means for interpreting said APDU messages, executing commands included in said APDU messages and transmitting responses in APDU format through said PSD Interface using said communications means; and

memory storage means for storing at least one unique identifier.

3.   (Currently Amended)   The system according to claim 1 further comprising:

at least one remote computer system comprising means for functionally connecting to said network and means for functionally communicating with said local client and further comprising:

server communications means for transmitting and receiving messages over said network using said packet based communications protocol;

first server data processing means for receiving requests from at least one applications level program, translating said requests into APDU format and transmitting said APDU formatted requests to a second server data processing means,

second server data processing means for encapsulating said ~~APDUs~~ APDU formatted requests received from said first server data processing means into outgoing message packets and transmitting said outgoing message packets over said network to said local client using said server communications means,

third server data processing means for receiving incoming messages from said local client using said server communications means and separating encapsulated APDUs from said incoming message packets thus generating

desencapsulated APDUs and routing said desencapsulated APDUs to a fourth server data processing means; and

fourth server data processing means for receiving and translating said desencapsulated APDUs sent by said third server data processing means into another message format thus generating a translated message and transmitting said translated message to at least one applications level program.

4. (Original) The system according to claim 1 wherein said network is a public network.

5. (Original) The system according to claim 1 wherein said network is a private network.

6. (Original) The system according to claim 1 wherein said protocol is an open communications protocol.

7. (Original) The system according to claim 1 wherein said protocol is a secure communications protocol.

8. (Canceled).

9. (Previously Presented) The system according to claim 2, wherein said PSD comprises:

PSD communications means for transmitting and receiving encrypted APDU messages through said PSD Interface;

first PSD processing means for decrypting incoming encrypted APDU messages using stored cryptographic information, thus generating incoming decrypted APDU messages;

second PSD processing means for interpreting said incoming decrypted APDU messages, and executing commands included in said incoming decrypted APDU messages;

third PSD processing means for encrypting outgoing APDU response messages using stored cryptographic information thus generating outgoing encrypted APDU response messages, and transmitting said outgoing encrypted APDU response messages in said APDU format through said PSD Interface using said communications means; and

memory storage means for storing at least one unique identifier and at least one cryptographic key.

10. (Currently Amended) The system according to claim 3, wherein said remote computer system comprises:

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server communications means for transmitting and receiving messages over said network using said packet based communications protocol;

cryptography data processing means;

first server data processing means for receiving requests from at least one applications level program, translating said requests into APDU format and transmitting said APDU formatted requests to said cryptography data processing means;

second server data processing means for encapsulating encrypted ~~APDUs~~ <u>APDU</u> formatted requests received from said cryptography data processing means into outgoing message packets and transmitting said outgoing message packets over said network using said server communications means;

third server data processing means for receiving incoming message packets using said server communications means and separating encapsulated APDUs from said incoming message packets thus generating desencapsulated APDUs and routing said desencapsulated APDUs to said cryptography data processing means; and

fourth server data processing means for receiving and translating decrypted desencapsulated APDUs sent by said cryptography processing means into another message format

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thus generating a translated message and transmitting said translated message to at least one applications level program;

wherein said cryptography data processing means comprises means for encrypting said APDU formatted requests received from said first server data processing means and sending said encrypted APDU formatted requests to said second server data processing means and for decrypting said desencapsulated APDUs received from said third server data processing means and sending said decrypted desencapsulated APDUs to said fourth server data processing means.

11-14.   (Canceled).

15.   (Previously Presented)   The system according to claim 1 wherein said network is a hardwired network.

16.   (Previously Presented)   The system according to claim 1 wherein said network is a digital cellular network.

17.   (Previously Presented)   The system according to claim 1 wherein said network is a wireless network.

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18. (Previously Presented) The system according to claim 1 wherein said network is an optical network.

19. (Previously Presented) The system according to claim 1 wherein said network is a telephone acoustical network.

20. (Currently Amended) A method of establishing a communications pipe between a PSD and a remote computer system over a network using a client as a host to said PSD, wherein said client and said remote computer system are in functional communications using a packet based communications protocol over said network, said method comprising:

generating a request to access said PSD on said remote computer system, wherein said request is in a non-native protocol for communicating with said PSD and said request is generated by an API Level Program,

converting on said remote computer system said request from said non-native protocol into an APDU format request message using a first server data processing means,

encapsulating on said remote computer system said APDU format request message into said packet based communications protocol producing an encapsulated request message, using a second server data processing means,

transmitting said encapsulated request message over said
network using said packet based communications protocol,

receiving by said client said encapsulated request message
sent over said network, processing said encapsulated request
message using a first data processing means to separate said APDU
format request message from said encapsulated request message,

routing on said client said APDU format request message
through a hardware device port assigned to a PSD Interface
independently of the origin and integrity of said encapsulated
request message, wherein said PSD Interface is in processing
communication with said PSD,

receiving by said PSD said APDU format request message
through said PSD Interface and processing said APDU format
request message using a first internal PSD data processing means,

generating a response message in APDU format by said PSD
using a second internal PSD data processing means and
transmitting said APDU format response message through said PSD
Interface,

receiving by said client said APDU format response message
through said PSD Interface and encapsulating said APDU format
response message into said packet based communications protocol
producing an encapsulated response message, using a second data
processing means,

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transmitting said encapsulated response message over said

network using said packet based communications protocol,

receiving said encapsulated response message sent over said

network by said remote computer system, processing said

encapsulated response message using a third server data

processing means to separate said APDU response message from said

encapsulated response message thus generating a desencapsulated

APDU response message, and

converting by said remote computer system said

desencapsulated APDU response message into a response in a

non-native protocol using a fourth server data processing means,

and forwarding said response to at least one API Level Program.

21.   (Original)   The method according to claim 20 wherein

said network is a public network.

22.   (Original)   The method according to claim 20 wherein

said network is a private network.

23.   (Original)   The method according to claim 20 wherein

said protocol is an open communications protocol.

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24.   (Original)   The method according to claim 20 wherein said protocol is a secure communications protocol.

25.   (Original)   The method according to claim 20 wherein said communications pipe is initiated automatically upon connection of said PSD to said local client.

26.   (Original)   The method according to claim 20 wherein said communications pipe is initiated by a client requesting access to information contained on one or more networked clients.

27.   (Original)   The method according to claim 20 wherein said communications pipe is initiated by a client requesting access to information contained on one or more networked remote computer systems.

28.   (Original)   The method according to claim 20 wherein said communications pipe is initiated by one or more networked remote computer systems requesting access to said PSD.

29.   (Currently Amended)   A method of establishing a secure communications pipe between a PSD and a remote computer system over a network using a client as a host to said PSD, wherein said

client and said remote computer system are in functional

communications using a packet based communications protocol over

said network, said method comprising:

generating a request to access said PSD on said remote

computer system, wherein said request is in a non-native protocol

for communicating with said PSD and said request is generated by

an API Level Program,

converting on said remote computer system said request from

said non-native protocol into an APDU format request message

using a first server data processing means, and sending said APDU

format request message to a cryptography data processing means,

receiving and encrypting said ~~APDUs~~ APDU format request

message using cryptography data processing means thus generating

an encrypted APDU request message and sending said encrypted APDU

request message to a second server data processing means, wherein

said cryptography data processing means uses a pre-established

encryption method,

encapsulating on said remote computer system said encrypted

~~APDUs~~ APDU request message into said packet based communications

protocol producing an encapsulated and encrypted request message,

using said second server data processing means,

transmitting said encapsulated and encrypted request message over said network using said packet based communications protocol,

receiving said encapsulated and encrypted request message sent over said network by said client, processing said encapsulated and encrypted request message using a first client data processing means to separate said encrypted APDU request message from said encapsulated and encrypted request message thus generating a desencapsulated encrypted APDU request message,

routing on said client said desencapsulated encrypted APDU request message through a hardware device port assigned to a PSD Interface <u>independently of the origin and integrity of said encapsulated and encrypted request message</u>, wherein said PSD Interface is in processing communication with said PSD,

receiving said desencapsulated encrypted APDU request message through said PSD Interface by said PSD and decrypting said desencapsulated encrypted APDU request message using an internal PSD data cryptography means thus generating a desencapsulated and decrypted APDU request message, wherein said cryptography means is pre-established, and sending said desencapsulated and decrypted APDU request messages to a first internal PSD data processing means,

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receiving said desencapsulated and decrypted APDU request

message from said internal PSD data cryptography means and

processing said desencapsulated and decrypted APDU request

message using said first internal PSD data processing means,

generating a response message in APDU format by said PSD

using a second internal PSD data processing means, encrypting

said APDU format response message using said internal PSD data

cryptography means thus generating an encrypted APDU format

response message and transmitting said encrypted APDU format

response message through said PSD Interface,

receiving by said client said encrypted APDU format response

message through said PSD Interface and encapsulating said

encrypted APDU format response message into said packet based

communications protocol producing an encapsulated and encrypted

response message, using a second client data processing means,

transmitting said encapsulated and encrypted response

message over said network using said packet based communications

protocol,

receiving by said remote computer system said encapsulated

and encrypted response message sent over said network, processing

said encapsulated and encrypted response message using a third

server data processing means to separate said encrypted APDU

response message from said encapsulated and encrypted response

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message thus generating a desencapsulated encrypted APDU response message,

decrypting said desencapsulated encrypted APDU response message received from said third server data processing means using said cryptography data processing means thus generating a desencapsulated and decrypted APDU response message and sending said desencapsulated and decrypted APDU response message to said fourth server data processing means, and

converting by said remote computer system said desencapsulated and decrypted APDU response message into a response in a non-native protocol using a fourth server data processing means, and forwarding said response to at least one API Level Program.

30.   (Original)   The method according to claim 29 wherein said network is a public network.

31.   (Original)   The method according to claim 29 wherein said network is a private network.

32.   (Original)   The method according to claim 29 wherein said protocol is an open communications protocol.

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33. (Original)   The method according to claim 29 wherein said protocol is a secure communications protocol.

34. (Original)   The method according to claim 29 wherein said secure communications pipe is initiated by a client requesting access to information contained on one or more networked clients.

35. (Original)   The method according to claim 29 wherein said secure communications pipe is initiated by a client requesting access to information contained on one or more networked remote computer systems.

36. (Original)   The method according to claim 29 wherein said secure communications pipe is initiated by one or more networked remote computer systems requesting access to said PSD.

37. (Original)   The method according to claim 20 or 29 wherein said network is a hardwired network.

38. (Original)   The method according to claim 20 or 29 wherein said network is a digital cellular network.

39.   (Original)   The method according to claim 20 or 29 wherein said network is a wireless network.

40.   (Original)   The method according to claim 20 or 29 wherein said network is an optical network.

41.   (Original)   The method according to claim 20 or 29 wherein said network is a telephone acoustical network.

42.   (Currently Amended)   A method of establishing a remote communications pipe between a PSD and a remote computer system over a network using a local client as a host to said PSD, wherein said local client is in functional connection with a PSD interface, and wherein said local client and said remote computer system are in functional communications using a packet based communications protocol over said network, said method comprising:

the local client transmitting and receiving message packets respectively to and from said remote computer system over said network using a packet based communications protocol, and transmitting and receiving APDUs through said PSD interface;

the local client receiving incoming message packets from said remote computer system, separating encapsulated APDUs from

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said incoming message packets thus generating desencapsulated

APDUs and routing said desencapsulated APDUs to said PSD through

said PSD Interface <u>independently of the origin and integrity of</u>

<u>said incoming message packets</u>; and

the local client receiving incoming APDUs from said PSD

interface, encapsulating said incoming APDUs into outgoing

message packets and routing said outgoing message packets to said

remote computer system.